

I hereby certify that this is being deposited with the United States Postal Service "Express Mail Post Office to Address" service under 37 CFR 1.10 on the date indicated above and is addressed to:

Assistant Commissioner for Patents  
Washington, D.C. 20231

By: Debra A. DeBello  
Debra Ann DeBello

11040 U.S. PTO  
10/081456  
02/21/02

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

Paulson et al.

Application No.: Unassigned

Filed: February 21, 2002

For: PRACTICAL IN VITRO  
SIALYLATION OF RECOMBINANT  
GLYCOPROTEINS

Examiner: Manjunath N. Rao (parent)

Art Unit: 1652 (parent)

**INFORMATION DISCLOSURE  
STATEMENT UNDER 37 CFR §1.97 and  
§1.98**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

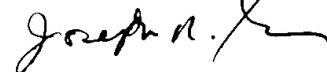
The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. In accordance with 37 CFR §1.98(d), copies of the references can be found in Application No. 09/007,741, filed 01/15/98 (Attorney Docket No. 019957-011210US). It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no

representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that no fee is required for submission of this statement, since it is being submitted prior to the first Office Action. However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,



Joseph R. Snyder  
Reg. No. 39,381

TOWNSEND and TOWNSEND and CREW LLP  
Two Embarcadero Center, 8<sup>th</sup> Floor  
San Francisco, California 94111-3834  
Tel: 925 472-5000  
Fax: 925-472-8895  
JS:dad

WC 9037860 v1

Please type a plus sign (+) inside this box

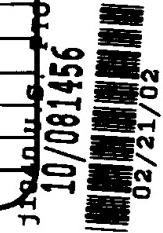
PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

Approved for use through 10/31/2002. GPO 0001-0001  
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

I Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO		<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(use as many sheets as necessary)</i>		Application Number	Unassigned
		Filing Date	November 8, 2001
		First Named Inventor	Paulson, James C.
		Group Art Unit	1652 (parent)
		Examiner Name	Manjunath N. Rao (parent)
Sheet	1	of	3
		Attorney Docket Number	019957-011213US



## **U.S. PATENT DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
	AA	5047335		J. Paulson et al.	09/10/91	
	AB	5272066		M.L.E. Bergh et al.	12/21/93	
	AC	5374541				
	AD	5541083		J.C. Paulson et al.	07/30/96	

## FOREIGN PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
	AE	PCT	WO 92/16640					
	AF	PCT	WO 94/25615					

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

**Burden Hour Statement:** This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

WC 9037860 v1

Please type a plus sign (+) inside this box → +

PTO/SB/08B (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449B/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet

2

of

3

### Complete if Known

Application Number	Unassigned
Filing Date	February 21, 2002
First Named Inventor	Paulson, James C.
Group Art Unit	1652 (parent)
Examiner Name	Manjunath N. Rao (parent)
Attorney Docket Number	019957-011213US

### OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	AG	MC Field et al., <u>Glycobiology</u> (1995) 5(5): 463-472	
	AH	A. Harduin-Lepers et al., <u>Glycobiology</u> (1995) 5(8): 741-758	
	AI	M Kono et al., <u>Glycobiology</u> (1997) 7(4): 469-479	
	AJ	M.A. Williams et al., <u>Glycoconjugate Journal</u> (1995) 12: 755-761	
	AK	L. Borsig et al., <u>Biochemical and Biophysical Research Communications</u> (May 5, 1995) 210(1): 14-20	
	AL	M. Gilbert et al., <u>The Journal of Biological Chemistry</u> (November 8, 1996) 271(45): 28271-28276	
	AM	C.F. Goochee et al. "The Oligosaccharides of Glycoproteins: Bioprocess Factors Affecting Oligosaccharide Structure and Their Effect on Glycoprotein Properties." <u>Review</u> , Dept. of Chemical Engineering, Stanford Univ., Stanford, CA	
	AN	D.H. Joziasse et al., <u>Journal of Biological Chemistry</u> (Jan. 25, 1985) 260(2) 714-719	
	AO	D.H. Joziasse et al., <u>Journal of Biological Chemistry</u> (Feb. 15, 1987) 262(5): 2025-2033	
	AP	J.C. Paulson et al., <u>Journal of Biological Chemistry</u> (Apr. 10, 1977) 252(7) 2363-2371	
	AQ	S. Tsuji et al., <u>Glycobiology</u> (1996) 6(7): v-xiv	
	AR	A. Varki, <u>Glycobiology</u> (1992) 2(1): 25-40	
	AS	J. Weinstein et al., <u>Journal of Biological Chemistry</u> (Nov. 25, 1982) 257(22): 13845-13853	
	AT	T. Yamamoto et al., <u>J. Biochem.</u> (1996) 120: 104-110	
	AU	J.C. Yeh and R.D. Cummings, "Differential Recognition of Glycoprotein Acceptors by Terminal Glycosyltransferases," Dept. of Biochemistry and Molecular Biology, Univ. of Oklahoma Health Sciences Center, Oklahoma City, OK	

Examiner Signature

Date Considered

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

WC 9037860 v1

Please type a plus sign (+) inside this box →

PTO/SB/08B (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449B/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet

**3**

of **3**

### Complete if Known

Application Number	Unassigned
Filing Date	February 21, 2002
First Named Inventor	Paulson, James C.
Group Art Unit	1652 (parent)
Examiner Name	Manjunath N. Rao (parent)
Attorney Docket Number	019957-011213US

### OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	AV	Goochee et al., <u>Bio/Technology</u> (1991) 9: 1347-1355	
	AW	Wen et al. <u>J. Biol. Chem.</u> (1992) 267: 21011	
	AX	Van den Eijnden et al. <u>J. Biol. Chem.</u> (1981) 256: 3159	
	AY	Sasaki et al. <u>J. Biol. Chem.</u> (1993) 268: 22782-22787	
	AZ	Kitagawa & Paulson <u>J. Biol. Chem.</u> (1994) 269: 1394-1401	
	AAA	Kitagawa et al. <u>J. Biol. Chem.</u> (1996) 271: 931-938	
	ABB	Paulson et al. <u>J. Biol. Chem.</u> (1978) 253: 5617-5624	
	ACC	Wallenfels et al. <u>Meth. Enzymol.</u> (1966) 9: 112-116	

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

WC 9037860 v1

I hereby certify that this is being deposited with the United States Postal Service "Express Mail Post Office to Address" service under 37 CFR 1.10 on the date indicated above and is addressed to:

Assistant Commissioner for Patents

Washington, D.C. 20231

By: Debra DeBello

Debra Ann DeBello

11040 U.S. PTO  
10/081456  
02/21/02

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

Paulson et al.

Application No.:

Filed: Herewith

For: PRACTICAL IN VITRO  
SIALYLATION OF RECOMBINANT  
GLYCOPROTEINS

Examiner: Manjunath N. Rao (parent)

Art Unit: 1652 (parent)

**SUPPLEMENTAL INFORMATION  
DISCLOSURE STATEMENT UNDER 37  
CFR §1.97 and §1.98**

Assistant Commissioner for Patents  
Washington, D.C. 20231

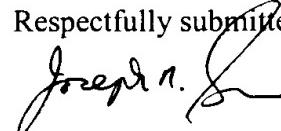
Sir:

The reference cited on attached form PTO/SB/08A and PTO/SB/08B is being called to the attention of the Examiner. A copy of the reference is attached herewith. It is respectfully requested that the cited reference be expressly considered during the prosecution of this application, and the reference be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the reference cited is prior art merely because it is in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that no fee is required for submission of this statement, since it is being submitted prior to the first Office Action. However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,



Joseph R. Snyder  
Reg. No. 39,381

TOWNSEND and TOWNSEND and CREW LLP  
Two Embarcadero Center, 8<sup>th</sup> Floor  
San Francisco, California 94111-3834  
Tel: 925 472-5000  
Fax: 925-472-8895  
JS:dad

WC 9037862 v1

Please type a plus sign (+) inside this box

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet

1

of

1

### Complete if Known

Application Number	Unassigned
Filing Date	February 21, 2002
First Named Inventor	Paulson, James C.
Group Art Unit	1652 (parent)
Examiner Name	Manjunath N. Rao (parent)
Attorney Docket Number	019957-011213US

110410  
10/081456  
02/21/02

### U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
	AA	5834251		Maras et al.	11/10/98	
	AB					
	AC					
	AD					
	AE					
	AF					
	AG					
	AH					
	AI					
	AJ					
	AK					
	AL					
	AM					
	AN					
	AO					
	AP					
	AQ					
	AR					
	AS					
	AT					

### FOREIGN PATENT DOCUMENTS

Examiner Initials *	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
	AU							
	AV							
	AW							
	AX							
	AY							
	AZ							
	BA							

Examiner Signature

Date Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

WC 9037862 v1